

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) ~~A high-voltage~~ An electrical insulating material; comprising:
a first material; and

a second material distributed within the first material to thereby, said insulating material being contained in a casing of a high-voltage device configured for insulating components of the device;

~~wherein said insulating material has an electrical conductivity which is changed by adding said second material such that when said insulating material is used in the device, surface charge which gathers on the components of the device is substantially dissipated by increased~~ increase electrical conductivity for, by dissipation of charge, preventing voltage flashover of said insulating material at least such that voltage flashovers are prevented, said insulating material having a specific resistance greater than 10^{10} Ω cm and less than 10^{12} Ω cm between the components, and voltage drops that occur during operation remain below breakdown voltages of said insulating material.

2. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim ~~6~~ 4 in solid form, wherein said second material coats a further material comprising at least essentially spherical particles which, in terms of their shape, size, material, coating, filling, distribution, and fraction with respect said insulating material, are, as selected and dimensioned, such as to cause said insulating material to have said specific resistance.

3. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 2, wherein ~~the spherical~~ said particles are hollow spheres with a diameter of up to about 100 μ m.

4. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 2, wherein ~~the spherical~~ said particles are filled with a gas.

5. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 2, wherein ~~the spherical~~ said particles are formed of at least one of a ceramic, and/or a phenolic resin, and/or an acrylonitrile copolymer.

6. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 12, said second material comprising an electrically conductive material.

7. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 2, wherein ~~the spherical~~ said particles have a coating consisting of a material that improves ~~the~~ adhesion between ~~the~~ said particles and a basic substance.

8. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 2, wherein ~~the spherical~~ said particles are embedded in a basic substance to which there is added an adhesion promoter for improving ~~the~~ adhesion between ~~the~~ said particles and the basic substance.

9. (withdrawn -- currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 1, wherein said first material comprises a liquid, said second material being dissolved in said liquid.

10. (withdrawn -- currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in claim 9, wherein said first material comprises an insulating liquid ~~such as~~ comprising at least one of a transformer oil and/or an ester liquid, and said second material comprises at least one of an aromatic and/or an alcohol.

11. - 12. (canceled)

13. (currently amended) ~~A high-voltage generator in which comprising~~ an insulating material as claimed in claim 1 is implemented for electrical insulation.

14. (currently amended) The method of claim 20, further comprising:
creating a hybrid insulating material by executing said forming for respective
constituents A high-voltage generator as claimed in claim 13, wherein the electrical
conductivity and/or the dielectric constant of the insulating material is selected such that
loading with DC voltage and/or AC voltage field strengths is substantially adapted to the
dielectric strength of the said hybrid insulating material.

15. (currently amended) An X-ray system having a high-voltage generator as claimed in
claim 13.

16. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in
claim 1, wherein said first material comprises a foam material.

17. (canceled)

18. (currently amended) ~~A high-voltage~~ An electrical insulating material as claimed in
claim 1, in solid form, ~~having a dielectric constant ϵ_r in the range 3 to 4.~~

19. (currently amended) ~~A high-voltage generator insulating material as claimed in claim~~
~~13, said generator having voltage drops during operation of said generator, said second~~
~~material being such and being distributed within said first material so as to, by the~~
~~increased electrical conductivity, cause a voltage drop of said voltage drops that would,~~
~~during said operation of said device implemented with said first material, attain at least~~
~~one of flashover voltage and breakdown voltage to remain below the respective one or~~
~~more of said at least one of flashover voltage and breakdown voltage, said generator~~

having components, said dissipation being of said surface charge which gathers on said components of said generator during said operation, said dissipation increasing load capacity in terms of direct current (DC) voltage field strengths causing the remaining below.

20. (currently amended) A method for providing a high voltage device with insulation to prevent voltage flashover, comprising:

forming a composite electrical insulating material by distributing within a first material a second material to thereby form a composite insulating material; and

disposing said insulating material in a casing of a high voltage device in such a manner as to insulate components of the device;

wherein said insulating material has an increase electrical conductivity for, by dissipation of charge, which is changed by adding said second material such that when said insulating material is used in the device, surface charge which gathers on the components of the device is substantially dissipated by increased electrical conductivity of said insulating material at least such that preventing said voltage flashover flashovers are prevented, said composite electrical insulating material having a specific resistance greater than $10^{10} \Omega\text{cm}$ and less than $10^{12} \Omega\text{cm}$ between the components, and voltage drops that occur during operation remain below breakdown voltages of the insulating material.

21. (new) A method as claimed in claim 20, wherein said second material coats a further material comprising spherical particles which, in terms of their size, material, coating, filling, distribution, and fraction with respect said insulating material, are, as selected and dimensioned, such as to cause said insulating material to have said specific resistance.

22. (new) A method as claimed in claim 20, said second material comprising an electrically conductive material.

23. (new) An electrical insulating material for a voltage generator, said generator for receiving an input voltage, increasing the received voltage, and making available, as output, the increased voltage, said insulating material comprising:

a first material; and

a second material distributed within said first material to thereby increase electrical conductivity for, by dissipating charge, preventing voltage flashover during operation of said generator, said insulating material being shaped for implementation within an interior of said generator to provide electrical insulation between components of said generator.

24. (new) An electrical insulating material as claimed in claim 23, distribution of said second material within said first material being uniform, said second material being electrically conductive and coating spherical particles.

25. (new) An electrical insulating material comprising:

an electrical insulating foam; and

a material distributed within said foam to thereby increase electrical conductivity for, by dissipation of charge, preventing voltage flashover.

26. (new) An electrical insulating material as claimed in claim 25, the distribution of said material within said foam being uniform, the distributed material being electrically conductive and coating spherical particles.

27. (new) An electrical insulating material as claimed in claim 1, said insulating material being shaped for implementation within an interior of a voltage generator to provide electrical insulation between components of said generator.